I/we claim

1. A simulated slot electric motor comprising:

a housing,

a rotor,

a stator having,

a magnetic flux tube,

a plurality of field windings at least partially disposed in a plurality of simulated slots, and

a plurality of electrical connections connected to the plurality of field windings configured to connect to a motor control package,

wherein the plurality of field windings are at least partially retained within the inside diameter of the magnetic flux tube.

2. The simulated slot electric motor of claim 1 wherein the motor control package comprises:

a commutation control package connected to,

a power supply package, having

a thermally conductive housing,

wherein the power supply package is secured to the thermal conductive housing configured to conduct heat away from the power supply circuit.

3. The simulated slot electric motor of claim 2 wherein the power supply package comprises:

a printed circuit board,

one or more transistors, and

a receptacle,

wherein the transistors are mounted to the printed circuit board in a vertical position and the transistors are secured to the thermal conductive housing, and

wherein the receptacle is configured to connect to the commutation control package.

4. The simulated slot electric motor of claim 2 wherein the motor control circuit comprises:

a modular power supply package, and

a modular commutation control package,

wherein the modular power supply circuit is configured to connect with the modular commutation circuit placing the modular power supply circuit and the modular communication control circuit in electrical communications.

5. The simulated slot electric motor of claim 4 wherein the modular power supply package is configured to mate with a plurality of modular commutation control package.

6. The simulated slot electric motor of claim 5 wherein the plurality of modular commutation control package comprises at least one selected from a variable speed control circuit, a fixed speed circuit, a reversing circuit, a dynamic braking circuit and a fixed variable speed circuit.

7. The simulated slot electric motor of claim 4 wherein said modular commutation package is configured to mate with a plurality of modular power supply package.

8. The simulated slot electric motor of claim 7 wherein the plurality of modular power supply package is at least one of the following; an AC power supply, a DC power supply, a 220 volt power supply, a 120 volt power supply and/or a 36 volt power supply.

9. The simulated slot electric motor of claim 1 wherein the magnetic flux tube comprises:

a plurality of ribbon coils, and

a plurality of insulation layers,

wherein the ribbon coils, separated by insulation layers, are bound together forming a generally cylindrical shape.

10. The simulated slot electric motor of claim 9 wherein each ribbon coil comprises

a plurality of layers of magnetic flux conductive material

11. The simulated slot electric motor of claim 10 wherein the magnetic flux conductive material comprises silicon steel.

12. The simulated slot electric motor of claim 1 further comprising:

an insulation configured to electrically isolate the field windings from the magnetic flux tube.

13. The simulated slot electric motor of claim 1 wherein the plurality of field windings are connected in one selected from a wye and a delta configuration, and

wherein the plurality of field windings form a generally segmented arc ring sector cylindrical shape.

14. An electric motor comprising:

a housing,

a rotor,

a stator having, and

a modular motor control package positioned in the motor housing comprising:

a modular power supply package, and

a modular commutation control package,

wherein the modular commutation control package is configured to plug into the modular power supply package, and

15. The electric motor of claim 14 wherein the modular power supply package is interchangeable with a plurality of modular power supply package.

16. The electric motor of claim 14 wherein the modular commutation control package is interchangeable with a plurality of modular commutation control package.

17. A stator for an electric motor comprising:

a magnetic flux tube,

a plurality of field windings at least partially disposed in a simulated slot, and

a plurality of electrical connections connected to the plurality of field windings configured to connect to a power source,

wherein the plurality of field windings are at least partially retained within the inside diameter the magnetic flux tube.

18. The stator for an electric motor of claim 17 wherein the magnetic flux tube comprises:

a plurality of ribbon coils, and

a plurality of insulation layers,

wherein the ribbon coils, separated by insulation layers, are bound together forming a generally cylindrical shape.

19. The stator for an electric motor of claim 17 wherein each ribbon coil comprises

a plurality of layers of conductive material

20. The stator for an electric motor of claim 17 wherein the conductive material comprises silicon steel.

21. The stator for an electric motor of claim 17 further comprising:

an insulation configured to electrically isolate the field windings from the magnetic flux tube.

22. A device for making a magnetic flux tube comprising:

a slitting means configured to slit a conductive sheet of material into a plurality of strips having a selected width,

a cutoff means configured to cut the plurality of strips to a selected length,

an insulation applicator configured to apply an insulation layer to the plurality of strips, and

a mandrel configured to wrap the plurality of strips into a plurality of ribbon coils.

23. The device for making a magnetic flux tube of claim 18 further comprising:

an adjustable wrap belt configured to aid in wrapping the plurality of strips around the mandrel.

24. The device for making a magnetic flux tube of claim 18 wherein the mandrel is expandable and configured to expand to wrap the plurality of strips into a plurality of coils, and configured to contract to remove the plurality of coils which are separated by a plurality of insulation layers.

25. The device for making a magnetic flux tube of claim 18 wherein the insulation applicator applies a bonding means for bonding the plurality of coils and plurality of insulation layers together to form the magnetic flux tube.

26. The device for making a magnetic flux tube of claim 18 further comprising:

a taper for sealing the trailing edges of the plurality of strips to the plurality of ribbon coils.

27. The device for making a magnetic flux tube of claim 18 further wherein the conductive material is steel.

28. A method of making a magnetic flux tube comprising the steps of:

slitting a conductive material into a plurality of strips having a selected width,

applying an insulation layer to at least one edge of the plurality of strips,

wrapping the plurality strips into a plurality of coils having a generally cylindrical shape,

cutting the plurality of strips to a selected length,

bonding the trailing ends of the plurality of strips to their respective coils,

bonding the plurality of coils together wherein the plurality of coils are separated from one another by an insulation layer.

29. The method of making a magnetic flux tube of claim 28 wherein slitting a conductive material comprises slitting steel.

30. The method of making a magnetic flux tube of claim 28 wherein wrapping the plurality of strips into a plurality of coils comprises wrapping the plurality of strips around an expandable mandrel.

31. A method of making a field winding for use in an electric motor having simulated slots comprising:

winding a conductive material in a substantially oval shape to form a plurality of field windings, each field windings having a positive phase and a negative phase,

containing the positive phase of each field winding in a simulated slot, and

containing the negative phase of each field winding in a simulated slot,

wherein the field windings form a segmented arc-ring sectors over and along the generator of a simulated winding tool.

32. The method of making a field winding of claim 31 further comprising:

electrically connecting the plurality of field windings in one selected from a whe and a delta configuration.

33. The method of making a field winding of claim 32 further comprising:

Supplying the simulated slot with a liquid crystal retainer.

34. A winding tool for making field windings for a simulated slot electric motor comprising:

a cylindrical shaft,

a plurality of blades configured to simulate a slotted area of one selected from a stator and a rotor,

wherein the field windings are formed around two or more of the plurality of blades.

35. The winding tool for making field windings of claim 34 wherein the plurality of blades are retractable.

36. The winding tool for making field windings of claim 34 further comprising:

a feeder configured to control the feed location of the field winding and simultaneously providing a form to retain the field windings on the wining tool while the field winding is being manufactured.

37. The winding tool for making field windings of claim 36 wherein the feeder comprises:

a recess for receiving at least a portion of the winding tool.

38. The winding tool for making field windings of claim 34 further comprising:

a retention device for containing the field windings on the winding tool .

39. The winding tool for making field windings of claim 38 wherein the retention device comprises:

a plurality of arms,

a plurality of rollers supported by the plurality of arms, and

a plurality of belts supported on the rollers,

wherein the belts are configured to aid in retaining the field windings on the surface of the cylindrical shaft.